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ABSTRACT

Information on basic skills improvement programs is provided through a review of research findings concerned with the factors determining quality education. These factors fall into four key areas: (1) the classroom--use of time, classroom climate/control, teacher behaviors, student behavior, organization of instruction; (2) administration--administrators' priorities, expectations, behaviors, responsibilities; (3) school climate--goal orientation, positive relationships, administrative support, leadership, commitment to basic skills mastery, and (4) parent/community involvement--adult volunteer or parent participation in basic skills classes. Five basic success elements common to all four areas are identified: leadership, high expectations, willingness to assume responsibility, two-way communication/interaction, and goal-oriented systematic approaches. A summary of research and extensive bibliography are appended. (Author/GK)

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Using Research to Develop Successful Basic Skills Improvement Programs

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New Jersey Department of Education

USING RESEARCH TO DEVELOP SUCCESSFUL BASIC SKILLS IMPROVEMENT PROGRAMS

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Executive Summary

Researchers investigating the factors that determine quality education have identified a network of interlocking influences that produce successful instruction and learning; these fall into four key areas: The Classroom, Administration, School Climate, and Parent and Community Involvement.

Their research findings have been summarized in this publication entitled, Using Research To Develop Successful Basic Skills Improvement Programs. Designed to provide useful information on basic skills improvement programs, this document reviews the factors and research findings that affect success in the key areas of Classroom, Administration, School Climate, and Parent/ Community Involvement and concludes with a research-documented summary of variables related to effective basic skills instruction. An extensive bibliography is appended.

Basic Success Elements

The document first identifies five basic success elements common to all four key areas: leadership style and behavior, high and realistic expectations, assumption of responsibility, communication and interaction, and systematic approaches to the achievement of goals.

Leadership, provided by principals, teachers and parents, in schools, classrooms and homes, affects directly students' interest and effort. High expectations at all levels produce high achievement, since people respond to the expectations others have of them. Other key factors are willingness to assume responsibility, effective two-way communication and interaction, and goal oriented systematic approaches whereby the school uses knowledge to enhance its effectiveness, e.g. through effective inservice training programs and team efforts.

Key Areas

In detailing the four key areas wherein the basic success elements were evident, the following research findings were significant: Key factors in the Classroom are: use of time - spent on "academic" rather than non-academic activities; classroom climate and control - encouraging constructive activities rather than disruptive behavior; teacher behaviors - involving commitment to basic skills, high expectations, strong leadership and positive motivation; student behavior - constructive and learning-oriented, with student-initiated contact with teachers; and finally, organization of instruction - involving content, a structured classroom management system with diagnostic-prescriptive approaches, proper use of student groupings, seatwork and opportunities for peer tutoring.

In the area of Administration, the support of administrators is crucial, affecting teachers as well as students in progressing toward basic skills goals. Support manifests itselfs in two areas: administrators' priorities and expectations (their attitudes and beliefs) and administrators' behaviors (their interaction with teachers, students and school personnel). Administrators have two interrelated responsibilities: instructional - insuring the delivery of effective instructional services; and managerial - administering the school system's day-to-day operations through which these services are delivered.

Studies of successful schools reveal that the principals provided strong leadership, emphasized student acquisition of reading skills, required frequent evaluation of pupil progress, established a climate of high expectations for all students and promoted information-sharing, team-building and problem-solving among their staff.

In the third area, School Climate, successful schools have more positive and goal-oriented climates; positive relationships and communication between people at all levels of authority; strong administrative support and rapport; strong leadership; and strong commitment to the mastery of basic skills.

In the fourth area, Parent/Community Involvement, the participation of adult volunteers and/or parents is a common factor in schools with effective basic skills programs. A study of hundreds of schools found that those achieving beyond expectation were characterized by great parental interest and involvement, with a higher number of adult volunteers in basic skills classes and successful use of teacher aides for non-teaching tasks. Parents become involved more intensely when they initiate the home-school relationship. The environment they provide in the home affects student behavior and learning in school and out. Furthermore, their participation in setting the standards for improving students' academic performance aids in the development of realistic, achievable goals. Their involvement in their children's learning should be encouraged.

The research reviewed herein also challenges some common beliefs, such as the theory that lower educational achievement among children of lower socio-economic status is due to "family background" rather than to educationally controllable factors. A research study of 2500 poor and minority group students in 20 Detroit schools, some performing well, others poorly, found that "pupil family background neither causes nor precludes instructional effectiveness....all children are eminently educable, and the behavior of the school is critical in determining the quality of that education." No evidence was found that family background primarily determines the quality of student performance. These findings contradict earlier survey research findings. The different conclusions are due in part to the failure of early studies to look closely at the differences in the schools serving different populations.

The research findings in the key areas of Classroom, Administration, School Climate and Parent/Community Involvement, and in the identification of the five basic success elements common to those areas, provide information which should be considered seriously when planning basic skills programs. These critical factors are largely controllable in the schools and can be changed through policy, leadership and training.

TABLE OF CONTENTS

	Page
Executive Summary	iv
INTRODUCTION	1
I. BACKGROUND: PLANNING FOR BASIC SKILLS IMPROVEMENT	5
II. THE "T AND E" PROCESS FOR BASIC SKILLS	5
1. Assessing and Analyzing Needs	6
2. Setting Goals and Developing Plans	6
3. Implementing Plans	6
4. Measuring Results and Identifying Needs	6
Chart: The Compensatory Education Process	6
III. KEY AREAS IN SUCCESSFUL BASIC SKILLS IMPROVEMENT PROGRAMS	7
A. The Classroom	7
B. Administration	7
C. School Climate	7
D. Parent and Community Involvement	7
IV. SUCCESS-ELEMENTS COMMON TO ALL FOUR AREAS	8
A. Leadership Style and Behavior	8
B. High and Realistic Expectations	9
C. Assumption of Responsibility	9
D. Communication and Interaction	10
E. Use of Knowledge	10

	Page
V. RESEARCH FINDINGS IN EACH OF THE FOUR KEY AREAS	13
A. Factors Influencing Success in the Classroom	13
1. Use of Time	13
2. Classroom Climate and Control	13
3. Teacher Behavior	14
4. Student Behavior	16
5. Organization of Instruction	16
B. Administrative Influences on Success	20
1. Administrators' Priorities and Expectations	20
2. Administrators' Behaviors	21
C. School Climate Factors Influencing Success	24
D. Parent/Community Involvement in Successful Schools	26
E. Summary	26
SUMMARY OF VARIABLES RELATED TO EFFECTIVE BASIC SKILLS INSTRUCTION, BASED ON EDUCATIONAL RESEARCH	27
BIBLIOGRAPHY OF RESEARCH FINDINGS	33

INTRODUCTION

New Jersey now provides in addition to basic skills programs funds for a compensatory education program in accordance with a law that requires each student to achieve a minimal mastery of basic communication and computation skills before receiving a high school diploma. In effect, it is the policy of this state that all students acquire the skills needed to function in our society -- the ability to speak, read, write and compute. All of us, teachers, administrators, local boards, parents, county superintendents and the State Department of Education, are expected to work together to ensure the success of this policy.

This document provides useful information on basic skills improvement programs gathered from research about what other teachers and school systems have done to increase student achievement. This information provides a sound basis for developing effective basic skills improvement programs.

EDUCATIONAL RESEARCH

From the 1920s to the present, educational researchers have attempted to identify factors that affect students' learning. The original focus was on identifying "desirable personality characteristics of teachers", but this approach proved inadequate since it overlooked many of the other factors involved in education and student success as learners.

During the late 1950s, researchers began to focus on the processes that affect teaching, the functions of schools and, ultimately, the student's level of achievement. The studies concluded that there is no single factor that makes for successful instruction and learning, but rather a network of interlocking influences (Ruff 1978). These studies, however, suffered from inadequate methodology, small sample size and the lack of any unifying conceptual framework.

More recently, researchers have turned to secondary analyses of research to identify influential factors that can be manipulated by educational decision makers at the district, school and classroom level, - an emphasis on "alterable variables." Bloom (1980) summarizes some of these new alterable variables, contrasts them with the nonalterable variables they replace, and indicates the gains in education to be secured from this new approach to educational research and practice. The alterable variables he stresses are:

- time-on task (as opposed to time available), which can be altered positively by the instructional process
- cognitive entry characteristics (as opposed to intelligence test scores), which have a high relation to achievement
- formative testing (as opposed to summative), which provides feedback and corrective procedures to help students attain mastery over learning tasks
- alterable teaching qualities (as opposed to static teacher characteristics), which emphasize favorable interaction with students through cues, reinforcement and participation
- home environment (as opposed to parent status), which can be altered to promote both positive interactions between children and their parents and learning emphases congruent with those of the school.

These few variables, studied by researchers and used by teachers, have brought about major changes in our views of learners and their learning potential, according to Bloom; and the search for alterable variables may be a central focus during the next decade, affecting profound changes in the school

Researchers have, in addition, turned their attention recently to the study of the characteristics of successful schools. Similar findings have emerged from a number of these studies. This emerging consensus about the factors associated with success gives rise to new optimism that improvement efforts can succeed. Accordingly, this document is organized around this "theory of school effectiveness" and incorporates the major findings from this research literature.

USING RESEARCH FINDINGS

While research into effective educational programs and practices can give information about what works and what doesn't, problems arise in applying research findings in our everyday work:

1. We tend to think of research information as not being readily available, and when available (such as at the educational improvement centers in New Jersey or in the ERIC system), it is sometimes reported in language that seems to confuse rather than clarify what the researchers have found.

2. Research studies are often carried out in isolation from each other and tend to be reported in discrete, fragmented ways, while educators deal with total people and complex, inter-related problems...and deal with them today, everyday.

3. Research often tends to stress results and general processes, omitting exactly how people developed and carried out the processes and activities that led to successful results. It is frustrating to be told of someone else's success without also being told what they did to achieve it; a model is presented without specific information on the means for implementing it.

4. Research findings often are, or appear to be, contradictory. The practitioner cannot be expected to judge methodology or to aggregate numerous studies with conflicting findings.

5. A clear link between theory and research is essential to the integration and interpretation of disparate research findings. Without the theoretical framework, the pieces of research cannot fit properly into the mosaic and only confound the interpretation.

6. And finally, but perhaps most important, research results take a long time to get from publications into the classroom or the school.

FAMILY BACKGROUND AND SUCCESS IN SCHOOL

A prime example of this last problem of time-lag between research findings and application can be seen in the widespread belief that, based on research, lower educational achievement among children of lower socioeconomic status is due to "family background" rather than to factors which educators can control.

This theory, widely held by many people in and out of education, has been addressed recently by Ronald Edmonds (1978) and others. Edmonds investigated the relationship between family background and school effectiveness by comparing the academic performance of 2,500 poor and minority group students in 20 schools in inner-city Detroit. He compared two schools, one whose student body did well on standardized tests and one whose student body performed poorly on the same tests; the student bodies of both schools were evenly matched on 11 social indicators.

Edmonds found that ". . .pupil family background neither causes nor precludes instructional effectiveness. . .all children are eminently educable, and the behavior of the school is critical in determining the quality of that education." He did not find any evidence in his own research or that of others to support the widely held belief that family background primarily determines the quality of student performance and learning. This erroneous belief, unfortunately, has been with us a long time, creating expectations of low achievement among educators and the general public, causing teachers to practice benign neglect in their classrooms and to "absolve their professional responsibility to be instructionally effective"[1], thus creating a self-fulfilling, negative effect upon students' learning.

The Coleman report and other large surveys conducted in the 1950s and 1960's found high correlation between educational achievement and socioeconomic status. These studies, however, often did not look closely enough at the differences in the education that was being provided to different populations and therefore were unable to account for their findings in terms of school differences. The obvious but erroneous conclusion was that the correlation between achievement and social status was causal in nature.

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[1] Brophy and Good 1972, Pigeon 1970, Rosenthal and Jacobsen 1968 in Felsenthal 1978, Glass and Smith 1977, Solomon and Kendall 1976, Tikunoff, Berlina and Rist 1975, Medley 1977, Stallings and Kaskowitz 1974, Harris and Serwer 1966, Brophy and Evertson 1974.

USING RESEARCH FINDINGS FROM SUCCESSFUL SCHOOLS

Many successful schools and basic skills improvement programs exist in this country. They have been studied by educators and social scientists to identify the factors that make for success. A review of the results of these studies indicates that these success factors fall into four interrelating key areas:

- Administration
- The Classroom
- School Climate
- Parent/community involvement

This document reviews the factors and research-findings that affect success in these key areas and concludes with a research-documented summary of all variables related to effective basic skills instruction. An extensive bibliography is appended for further reference.

I. BACKGROUND: PLANNING FOR BASIC SKILLS IMPROVEMENT PROGRAMS

Experience has shown that basic skills programs are more likely to succeed when all the people involved see their efforts as part of a systematic process. Education in New Jersey is a system comprising the state, county, local districts, individual schools, each classroom, and the teaching/learning relationships and activities between each teacher and student. Each level, each role, and each individual are crucial in determining how well the overall educational system works. It cannot function at its best without the cooperative involvement and commitment of all the people involved.

Each level of the system affects, and is affected by, the other levels. The success of educational programs rests on a foundation of teacher-student interaction, and all the other parts of the system contribute to the success or failure of that interaction. Although the classroom is where results are achieved, many factors outside the classroom contribute to those results, such as good leadership, high expectations, effective communication, school climate and the like.

Education is a craft, a mix of art and science. The scientific research in education does not provide guaranteed prescriptions for success in all cases, yet we cannot ignore it. Improvement efforts which are based on sound knowledge are more likely to succeed. Increasing our effort to use knowledge base, will also refine and improve the knowledge base and stimulate further scientific research. All planners at all levels should become acquainted with, and use, the available knowledge acquired from scientific research.

II. THE "T & E" PROCESS FOR BASIC SKILLS

In New Jersey, state law requires that all education programs be developed and carried out in a process that has four interrelated steps:

1. Assessing and Identifying Student and Curricular Needs.
2. Establishing Objectives and Developing Plans.
3. Implementing Plans.
4. Measuring Results and Identifying Needs.

The basic skills improvement process is a cycle which is the same for the state as a whole, for local districts, for each school in the district, for each classroom, and for each student in the program. Each step in the improvement process is outlined below.

THE "T & E" PROCESS FOR BASIC SKILLS

1. ASSESSING & IDENTIFYING STUDENT AND CURRICULAR NEEDS

-Each student assessed.

-Results analyzed and needs identified by people at each level for:
- the individual student.
- each classroom.
- the overall school
- the whole school system.

-Identification of students in need through comprehensive assessment techniques K-2, on MBS tests 3,6,9 and 11, on locally determined standardized tests 4,5,7,8 and 10. Identification is verified by other assessment data.

-Teachers and administrators use their analysis of assessment results to (a) clearly identify individual student needs and (b) identify curricular skill deficiencies.

2. ESTABLISHING OBJECTIVES & DEVELOPING PLANS

-Written objectives established and written plans developed for reaching them.

-Classroom and compensatory education teachers (with parent and student involvement) develop written objectives and plans for:
- the student.
- the class.

-Teachers and principal develop written objectives and plans remediating the curricular deficiencies in basic skills for each class and the school.

-Principals and central administrators develop written objectives and plans for the school system.

3. IMPLEMENTING PLANS

-Classroom and compensatory education teachers carry out plans for each student and class.

-Principal provides leadership, resources and support to teachers working toward individual, class and school-wide goals.

-Central administrators provide leadership, resources and support to each school working toward its goals and system-wide goals.

-Compensatory education program coordinated and articulated at all levels

4. MEASURING RESULTS & IDENTIFYING NEEDS

-Each student retested each year.

-Test results analyzed at each level; successes and new/continuing needs of individuals and groups identified by people at each level.

-Information on successes and needs disseminated at each level to strengthen motivation and reinforce commitment.

-The cyclical improvement process is carried out again, with a corresponding increase in basic skills mastery by and among students.

III. KEY AREAS IN SUCCESSFUL BASIC SKILLS IMPROVEMENT PROGRAMS

Educators have identified four key factors for success, interlocking components of a network, all of which must be considered in efforts to improve basic skills educational programs: Classroom, Administration, School Climate, and Parent and Community Involvement.

- Classroom: Teachers provide leadership in the classroom and influence student performance by their priorities, expectations, capabilities and everyday behaviors. Students' expectations, priorities, capabilities and behaviors influence their own success as learners, other students' success and, to some degree, the teachers' success.

- Administration: The principal provides leadership to the school as a whole. His/her priorities, expectations, capabilities and everyday behaviors set the tone for success and influence teachers, students, parents and the overall school climate.

- School climate: The school climate reflects, affects, and is affected by the shared expectations, priorities and everyday behaviors of administrators, teachers, students and parents.

- Parent and community involvement: Parents provide leadership in the home. Their priorities, expectations and behaviors influence their children as learners, and their involvement in the school, classroom and goal-setting/planning can affect their children's achievement in school.

IV. SUCCESS-ELEMENTS COMMON TO ALL FOUR AREAS:

To achieve improvement in basic skills, the four key areas of Administration, Classroom, School Climate, and Parent/Community Involvement contain common basic elements which are identified as:

A. Leadership Style and Behavior
B. High and Realistic Expectations
C. Assumption of Responsibility
D. Communication and Interaction
E. Use of Knowledge

Each of these key success-elements is detailed in the following subsections:

A. Leadership Style and Behavior

Research has shown that what leaders actually do on a day-to-day basis, their everyday behavior and the things they stress consistently, have an immense impact on the way other people respond.[1] Principals, teachers and parents all provide leadership, in their schools, classrooms and homes, respectively, and affect directly the students' desires and efforts to learn.

Effective leadership for learning is more challenging and complicated than the "order-giver/order-taker" model implied in the term, "leader."

McClelland,[2] in his research on leadership, found that successful leaders do four basic things:

- They help others set clear-cut, realistic goals.
- They make sure that the goals set are widely known and understood by everyone involved in reaching them.
- They make sure that the resources (time, other people, equipment, supplies) needed to reach the goals are available and that people know they are available.
- They help people feel strong enough and competent enough to work hard to reach the goals, by inspiring, encouraging, supporting, and challenging them.

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[1] Ruff 1978 drawing upon studies by Rosenshine 1977, Stallings and Kaskowitz 1974, Soar 1973, and Solomon and Kendall 1976.

[2] McClelland, David, "The Two Faces of Power," Journal of International Affairs, Vol. 24, No. 1, 1970, pp. 2-19.

Parents, teachers and administrators all have leadership responsibilities, and must work together cooperatively, sharing ideas, information, resources, and participation.

B. High and Realistic Expectations

Research findings clearly indicate that people tend to respond to the expectations others have of them. Sufficient data support the theory that high student achievement levels are directly and positively correlated to teachers' high expectations for pupils.[1] Lower teacher expectations, especially for "pull-out" students in remediation, result in lower levels of student achievement (Glass and Smith 1977).

Expectations are transmitted through informal, day-to-day behaviors as well as through direct oral or written expression. Parents, teachers and administrators with high expectations of themselves, of each other and of the students, communicate those expectations by what they do and how they do it, as well as by what they say.

Principals are the central figures in establishing expectation levels within a school. If they truly believe that all students can achieve and that all teachers can help students achieve, they will increase the success of the basic skills improvement program (Edmonds 1978). If, however, they don't believe that all students can learn and that all teachers can help students learn, they will undermine program success from the beginning (Brookover and Lezotte 1976).

High expectations breed high achievement, and high achievement helps strengthen and sustain high expectations. We must, however, guard against expectations which are unrealistically high for the individual students since they can result in student frustration and become dysfunctional. Compensatory education programs require clear, participatory goal-setting, program analysis, planning and measurement of results. This is a basic framework in which high, realistic expectations are required, can flourish and be reinforced.

C. Assumption of Responsibility

The willingness to assume responsibility is another key success-factor in compensatory education programs. Responsibility means the ability to respond, to take action, to cope with a situation or a problem or a crisis.

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[1] Weber 1971, Clark 1964, Gottlieb 1964, Becker 1952 and Brookover and Lezotte 1974, Brophy and Good 1972, Pigeon 1970, Rosenthal and Jacobsen 1968 in Felsenthal 1978, Glass and Smith 1977, Clark, Lotto and McCarthy 1980.

D. Communication and Interaction

Effective communication and interaction are the glue that holds together successful compensatory education programs. People have to communicate and work together to assess student needs, set goals, analyze program, develop plans, make decisions, solve problems that arise, carry out instructional activities, monitor progress, measure results and identify achievements as well as unmet needs and areas for improvement.

These activities involve everyone connected with the effort to improve basic skills: students, parents, teachers, principals and other administrators. The quality of communication and interaction contributes to the success or failure of any basic skills improvement program.

Successful communication and interaction must be:

- open and direct, to build trust
- two-way, involving both talking and listening
- involving, encouraging the ideas, feelings, and full participation of everybody in the process, to create a cooperative, shared effort
- results oriented, concerned with the actual outcomes of education activities

The principal sets the tone for communication and interaction within the school; each teacher sets the tone in the classroom; and parents set the tone in the home.

E. Use of knowledge

Research shows that both long-term and short-term planning can contribute to successful education improvement and innovation, allowing people to establish long- and short-term goals, measure progress regularly and change instructional approaches as needed (Roberts 1978 summarizing Havelock and Havelock 1973). Effective plans, however, must be rooted in the knowledge of effective practices.

Effective planning should involve all levels of the school system --central administrators, principals and teachers, in the planning process, and should provide training that helps teachers become aware of childrens' learning styles and their own teaching styles.

Effective in-service training programs enable teachers to share concerns, ideas, successes and materials, and also to develop their instructional skills. Research shows that effective inservice programs involve teachers in:

- planning and managing ways to improve their own proficiency levels.
- developing appropriate activities.

- pursuing both individual and collective goals.

- applying their own learning in the classroom and receiving feedback from administrators. (Tolbert 1978, summarizing Lawrence 1974)

Since students move from teacher to teacher, basic skills improvement requires coordination between teachers. Thus, coordinated planning is required at the individual classroom level, the building level and throughout the school district (Roberts 1978).

Kiser (1978) has identified the following characteristics of comprehensive planning in successful districts:

- active participation by teachers, administrators and the superintendent.

- direction of the skills improvement program by a task force representing teachers, principals and central administrators.

- coordination of the planning by a high-level administrator, at least an assistant superintendent.

- use of a work plan and schedule created through participatory planning.

- collaborative, cooperative communication and interaction on a systematic basis at all levels.

- use of consultants as advisors, not as project directors or coordinators.

- use of the task force to provide guidance, direction and clear-cut tasks for administrators and teachers at the district, building and classroom levels.

- shared goals at the district, building, classroom and individual levels, with goals and sub-goals dove-tailing and supporting each other.

- productive activities at all levels in support of the goals, such as staff training, documentation of progress, identification and analysis of problem-areas.

- information about progress made available to everyone at all levels (administrators, teachers, students) so that people can perceive themselves, their efforts, and the overall program as successful.

Planning is successful when supported by an underlying belief on the part of administrators and teachers that all students can learn basic skills (Smith 1977, Brookover and Lezotte 1976) and where there is a clear commitment by teachers and administrators to improve basic skills as a priority (Samuels in press, Carroll and Chall 1975, Bond and Dykstra 1967, Wilder 1977).

Adequate time and effort are needed to design and implement effective learning systems (Keen and Neid 1977). Successful planning is continuous or cyclical so that unanticipated problems can be dealt with as they arise, and improvements or modifications in instructional strategies and program activities can be made on an on-going basis as needed. (Firestone 1977, Heathers et al. 1977, Moore et al. 1977)

Research clearly demonstrates that, in successful programs, the principal serves as an instructional leader, supporting the school improvement process by developing a team effort and providing problem-solving leadership. (McLaughlin 1978)

Administrators and principals who want effective educational programs use participatory planning as the basis for creating the supportive conditions needed for improvement on a district-wide and school-wide basis. Research shows that educational improvement is comprehensive and lasting if this approach to planning is used.

V. RESEARCH FINDINGS SPECIFIC TO EACH OF THE FOUR KEY AREAS:

In addition to the success-factors that are common to all four key areas in basic skills improvement programs, research has shown that each of the four areas has specific factors that contribute to success. These factors are discussed below, with citations of research findings for each area.

A. FACTORS INFLUENCING SUCCESS IN THE CLASSROOM

Five key factors influence student learning and achievement in the classroom:

1. Use of Time.
2. Classroom Climate and Control.
3. Teacher Behavior.
4. Student Behavior.
5. Organization of Instruction.

1. Use of Time (2, 4, 16, 19, 27, 32, 33, 34, 35, 37, 40)
(Numbers refer to citations in the appended bibliography)

The amount of student time in the classroom and how it is used strongly influence student achievement. Low student absenteeism means more time spent in class; but how their classroom time is used is significant. Researchers have found that student achievement is greater when the time in class is spent on task-related, "academic" activities, rather than on non-academic activities (Rosenshine 1976 in Ruff 1978). The term, "time usage," means the actual number of minutes that students are engaged in performing the learning task at hand, and does not include the wide range of non-instructional activities, behaviors, tasks and issues that often arise in classrooms (Ruff 1978).

2. Classroom Climate and Control (1, 6, 20, 27, 29, 33, 34, 35, 37, 38, 39, 40, 42)

Time spent dealing with behavior and discipline problems reduces the time needed for learning and academic tasks (Ruff 1978). Apart from the use of time, however, the overall environment and working relationships in the classroom affect student achievement in other ways. Research shows that environments in higher achieving classrooms are "convivial, democratic and warm," while practices of belittling, ridiculing, scolding, shouting and criticising student behavior prevailed in lower achieving classrooms (Tikunoff, Berliner and Rist 1975 and Solomon and Kendall 1976). Research has found that teachers in effective classrooms use an "intermediate position" for classroom control, rather than a self-defeating approach based on criticism of student behavior and imposition of rigid controls. "An intermediate position" refers to the vast middle ground between a laissez-faire, "do your own thing" abdication of responsibility for exerting classroom control, and the rigid, critical, punitive approach at the other extreme. A well-managed classroom provides conditions for success and constructive activities rather than for disruptive, deviant behavior.[1]

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[1] Medley 1978 in Ruff 1978, noting the studies of Soar 1973, McDonald and Elias 1976, Brophy and Evertson 1974, Bemis and Luft 1970, and Coker, Lorentz and Coker 1976.

There is strong evidence that a positive classroom environment is related to how teachers use praise and criticism in dealing with students. Basically, researchers have found that effective teachers use praise and criticism in relation to students' ACADEMIC activities and behaviors, but do NOT use praise or criticism in relation to NON-ACADEMIC student behavior in the classroom.[1]

Praise and criticism are both reinforcers of behavior, with praise providing "positive reinforcement" and criticism "negative reinforcement"; both can actually reinforce and strengthen the behaviors to which they are directed.[2] Teachers in effective classrooms reserve their use of praise and constructive criticism for student performance and activities in specific academic areas; they do not shout, scold, ridicule, or use sarcasm in dealing with deviant or disruptive behaviors.

3. Teacher Behaviors (6, 9, 13, 16, 17, 19, 20, 26, 28, 29, 32, 33, 34, 35, 37, 39, 40)

In addition to classroom climate and control, researchers have identified other teacher behaviors that contribute to student achievement and successful programs.

Extensive research has shown that high student achievement levels are directly related to high teacher expectations of students which are communicated consistently to the students. The reverse is true also, in that low teacher expectations result in lower levels of student achievement (Weber 1971, Clark 1964, Gottlieb 1964, Becker 1952, and Brookover and Lezotte 1974 among many others).

In addition, research shows that effective teachers directly assume the responsibility for teaching basic reading and math skills and are committed to doing so; and that teachers in successful programs emphasize reading-related activities in the classroom.

Researchers have found that effective teachers provide strong leadership by directing activities in a business-like way, that is, the effective teacher plans direct, academic-related tasks, emphasizing them as the primary focus of activity in the classroom (Ruff 1978, drawing upon studies by Rosenshine 1977, Stallings and Kaskowitz 1974, Soar 1973 and Solomon and Kendall 1976). Achievement is greater when the teacher selects the focus of classroom activities and applies instructional approaches and principles of learning that are appropriate for the students' learning styles and current levels of achievement. In simpler terms, research has found that effective teachers occupy a central role in the classroom and organize learning around questions posed and tasks set.

Much research supports the value of teachers asking direct questions related to academic areas. One researcher found that "pupils' responses to direct academic questions provide significant and positive correlations with achievement, whereas pupil responses to non-academic questions and to open-ended questions correlate negatively with achievement." (Rosenshine 1976

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[1] Ibid

[2] Soloman and Kendall 1976, Tikunoff, Berliner and Rist 1975, Medley 1978, Stallings and Kaskowitz 1974, Harris and Serwer 1966, Brophy and Evertson 1974, Glass and Smith 1977.

in Ruff 1978) Other studies show that questioning by the teacher provides opportunities for students to succeed and answer questions correctly when the questions are near their ability level (Brophy and Evertson 1974). Students are not only dealing with academic learning in the classroom, but are also learning about themselves as learners. Therefore, research suggests that effective teachers ask questions that are near students' ability levels, not only to allow students to build on existing knowledge, but also to increase the possibilities for students to succeed and to come to view themselves as successful learners.

The kinds of academic questions teachers ask are also important to student achievement. Researchers have found that effective teachers of students from lower socio-economic groups ask fewer and lower-order (more basic, less complicated) questions in reading and math than do teachers in less-effective classrooms and programs.[1]

In addition, research shows that effective teachers are less likely to elaborate on or discuss students' answers (Medley 1978, Perham 1973, Soar 1973, Brophy and Evertson 1974). A related and surprising finding is that effective teachers of lower socio-economic status students do not encourage their students to analyze, synthesize, or evaluate, but provide them with opportunities to successfully answer narrow questions asked by the teacher (Medley 1978). Apparently, teachers who emphasize basic skills enable students to raise their achievement levels and acquire solid foundations upon which critical thinking skills can be built.

In summary, effective teachers make it possible for students to: (a) experience realistic success in answering academic questions (b) have their correct answers accepted as sufficient and adequate in and of themselves and (c) develop a sense of themselves as successful, capable learners.

Research has also shown that teacher use of the desired and expected skills directly affects student achievement and learning. As an example, "The frequency of the use of logic by the teacher was identified as a significant variable in children's acquisition of logic..." (Gregory and Osborne 1975 in Gow 1977).

In addition to questioning, praise and positive motivation have also been identified as powerful influencers of student learning and achievement. Researchers have found that effective teachers use more praise and positive motivation in dealing with students in academic areas than do less effective teachers.[2]

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[1]Medley 1978 in Ruff 1978, citing the studies of Soar 1972, 1973, Stallings and Kaskowitz 1974, Coker, Lorentz and Coker 1976, and Brophy and Evertson 1974.

[2]Medley 1978 reviewing the findings of Stallings and Kaskowitz 1974, Harris and Serwer 1966 and Brophy and Evertson 1974.

Effective teachers also use selective, token reinforcement of learning, rather than frequent rewards (e.g., recognition, gold stars, special privileges, etc.). This helps the student develop an increased sense of his or her own worth and ability as a learner and as a person capable of academic achievement, rather than make him dependent on the teacher's response (Stallings and Kaskowitz 1974 in Ruff 1978).

4. Student Behavior in the Classroom (6, 18, et. al)

Student behavior that contributes to success in the classroom is inferred in the research findings cited in the preceding sections, such as:

- Attendance at school and presence in the classroom.
- Constructive, learning-oriented behavior, rather than deviant, disruptive behavior.
- Involvement in task-related academic activities, rather than in non-academic activities and issues.
- Working on tasks and answering questions that are near their current ability level.
- Recognition and acceptance of their own success.

In addition, research has shown that student-initiated contact with the teacher concerning academic tasks enhances effective instruction and contributes to gains in student achievement levels. Classroom activities and relationships can be structured to encourage such student-initiated contact (Brophy and Evertson 1974 and Good and Grouws 1975).

Effective teachers do not expect all students to display these sorts of positive learning behaviors spontaneously, particularly if they have not previously experienced success and a sense of their own competence and worth as learners. One challenge for teachers is how to increase these effective learning behaviors among students in their classrooms. Teachers working together with parents can have a positive influence on student behaviors in the classroom.

5. Organization of Instruction (2, 4, 6, 10, 11, 13, 14, 15, 16, 17, 18, 19, 21, 26, 27, 29, 32, 33, 34, 35, 36, 37, 40, 42, 43)

Research indicates five key factors in the organization of instruction that supports student achievement in basic skills improvement efforts. They are:

a. A structured classroom management system.

b. The content of instruction.

c. The size of student groupings for instructional purposes.

d. How seatwork is organized and supervised.

e. Opportunities for peer tutoring.

Each of these is discussed below.

a. Researchers have found that learning is directly related to how that classroom's activities are organized and structured (Berliner and Rosenshine 1977 in Ruff 1978) and that successful basic skills improvement programs all have in common a structured classroom management system which possesses the following (Evans 1978):

- Teachers who use "diagnostic-prescriptive" approaches for planning and structuring learning activities.

- "Diagnostic-prescriptive" approaches that involve (1) adequate assessment of student needs, (2) clearly written, understandable basic skills goals for each student, (3) use of a variety of instructional strategies and materials appropriate for each student, (4) systematic implementation of teaching activities, and (5) frequent and careful measurement of student progress by teachers.

- A teaching style within the framework created by diagnostic-prescriptive approaches, whereby effective teachers (1) inform their students of the objectives of each lesson, (2) communicate their own expectations for achievement, and (3) point out how the current lesson relates to content previously taught.[1]

Research has shown that it is the patterns of instructional practices that lead to student achievement, rather than the use of single practices or teaching skills. Effective teachers use a variety of teaching methods and materials adjusted to students' needs and learning styles, and do not depend on just one set of materials, one instructional method, or even one combination of methods for instruction. A structured approach is not totally synonymous with individualization, although it may incorporate some aspects (Cooley). Available research does not suggest that individualized instruction programs are inherently more effective; however, structured classroom systems have proven effective.

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[1]The diagnostic prescriptive approach to enhance educational achievement is supported by many specific research studies: Educational Programs That Work, Vol. IV., Winter, 1977, United States Office of Education, Benz (1975) Scott (1977) Harbison (1973) Harrell (1974) Sowinski (1976) Foley and Hamilton (1975) Harness (1974) Spann (1974) Schmidt (1973) Weatherford (1977) Scott (1974) Neff (1974) Forber (1974) Reid (1974) Curry (1973) Howell (1974) Gibbons (1974) Dodd (1974) West (1975) Adler (1974) Dornseif and Carr (1977) Johnson (1974) Sinclair (1973) Blockmore (1974) Mello (1974) Morgan (1974) Musso (1974) Warner (1974) Sharpe (1976) Schromon (1974) Backer (1973) Sears (1974) and Howell (1973).

b. Research also emphasizes the relationship between the content of instruction and student gain. Ruff (1978) defines content of instruction as "any materials, patterns of sequencing and organization, methods of questioning, etc., that characterize the transmission of information in the classroom."

Another researcher (Rosenshine 1976, 1977) defines "content covered" as the opportunity for students to learn the content on which they will be tested. Restated, this highlights the relationship between the skills emphasized in the curriculum and the skills tested. Other researchers state it more bluntly: "If a student has not been taught what he or she is being tested for, then achievement will be low." (McDonald and Elias 1976) However, the controversy that swirls around the general issue of "teaching to the test" appears less relevant to basic skills improvement efforts. The abilities to read, write and compute are necessary to function effectively in our society, and their presence or absence is relatively easy to measure. Teachers who really know what is measured through compensatory education tests are in a better position to make sure that the content they teach will have an impact on basic skills achievement.

c. The grouping of students in basic skills improvement programs is also an important factor in success. Researchers agree that the most effective instruction occurs in small groups of three to seven students. However, other research indicates that, under certain circumstances, large groups of eight or more children are more effective.[1] Surprisingly, researchers found a consistent and negative relationship with student achievement levels when teachers worked alone with only one or two children in basic skills improvement programs (Ruff 1978), because activities were provided in isolation from their peers.

d. Researchers have also found that effective teachers assign more seatwork for students, but do not permit students to do unsupervised seatwork. Studies show that achievement is low when students are assigned a great deal of seat work to do totally independently. Effective teachers spend more time checking on individual students' seatwork, and consistently supervise seatwork when it is assigned (Medley 1977 and Gow 1976). The studies of Ruff 1978 indicate a positive and significant relationship between higher student achievement and direct supervision by the teacher. Additional studies have shown that this monitoring of seatwork by the teacher has even more impact on learning when students seek contact with the teacher for feedback (Brophy and Evertson 1974 and Good and Grouws 1975).

Seatwork is a very important factor in basic skills improvement programs. Thus, researchers have found that children from low socio-economic groups "profit more from seatwork or individually prescribed learning activities, which are based on assessment (of students' needs), as opposed to activities which require oral responses."

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[1]Berliner and Rosenshine 1977, Gow 1977, Medley 1978, Stallings and Kaskowitz 1974, Rosenshine 1976-1977.

e. In addition, researchers have also found that student achievement is increased when opportunities for peer-tutoring are made available, and that the tutors benefit from this activity as well as the fellow-students they are tutoring.

Two important areas of research in which findings to date are unclear or contradictory, and in which controversy abounds, concern class size and pull-outs. Studies differ in methods and sample size. Glass and Smith, in a comprehensive analysis of 80 studies on class size, involving 900,000 students, show a relationship between class size and achievement. Student achievement increases dramatically when class size drops below 20. Reduction of class size tetween 30 and 20 results in only limited gains (1977). This study has been criticized by other researchers dealing with effective ways to group for instruction (refer to c above); some felt that small groups with three to seven children were more effective, while others inclined towards large groups of eight or more children. The Educational Research Service has published a rebuttal to the Glass and Smith analysis that criticizes their work on methodological grounds. Both studies agree, however, that only small differences in achievement occur in the typical mid-range class size of a public or private school!

The teacher working alone with one or two children was consistently and negatively correlated with student achievement (Ruff 1978). Effective teachers organize instruction around large groups and assign more seat work but do not permit the children to work independently.

Until further work is done, no conclusive statements regarding class size can be made.

With regard to "pull-outs", an emerging body of evidence suggests limitations to the effectiveness of pull-out programs. Based upon an extensive review of literature and interviews with many educators, conducted at the request of the Commissioner of the U.S. Office of Education, Glass and Smith found that the risks of "pull-out" programs far outweigh their gains, and that such pupils pulled out of their classrooms are faced with fewer opportunities to increase their levels of academic achievement (1977). The data show that approximately 75% of compensatory education pupils are pulled out of their regular classrooms and taken to another room to be taught by a specialist remedial teacher. It was noted that these special teachers often had little or no training in teaching and meeting the academic needs of remedial students. A significant percentage of these pupils miss regular classroom instruction in the subject for which they are removed (e.g. they are pulled out of regular reading to receive remedial reading). The regular and the special classroom teachers apparently do not coordinate their teaching strategies. This results in less time spent on tasks designed to correct basic skills deficiencies. Social studies and science are other academic subjects missed by compensatory education pupils. Furthermore, there is a consistent negative relationship between the time pupils spend in "pull-out" classes and their reading and math achievement. "Pull-out" often results in the negative labeling of many students who are viewed by the teachers as less capable, with less expected of them. Lower teacher expections result in lower levels of student achievement.

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[1]Educations Research Service Class Size Research: A Critique of Recent Analyses. Arlington, Virginia ERS 1980.

B. ADMINISTRATIVE INFLUENCES ON SUCCESS

Research results are clear and unsurprising: Administrators are crucial to the success of basic skills programs within a school system and their effectiveness in this area can be seen in the progress that teachers and students make toward basic skills goals.

Research findings on administrative influences found two general areas of administrative impact on basic skills improvement efforts:

1. Administrators' priorities and expectations.
2. Administrators' behaviors.

By "administrators' priorities," we mean the issues and areas that administrators emphasize as important. By "administrators' expectations," we mean the underlying attitudes and beliefs that administrators have and communicate to others involved in the task of improving student basic skills achievement.

Administrators' priorities and expectations are demonstrated and communicated to others by what they actually emphasize on a regular basis, through their day-to-day behaviors and interactions with other people.

1. Administrators' Priorities and Expectations (4, 7, 8, 13, 16, 17, 21, 23, 30, 34, 35)

Educational administrators have dual interrelated responsibilities: (1) management of the school system's day-to-day operations and (2) the organization, monitoring and improvement of the delivery of instructional services. The key individual in any school is the principal; his dual management and educational responsibilities make the role a unique and challenging one, requiring skills in both areas.

Research shows that effective schools are led by administrative teams that possess both the management and the instructional skills needed to make the school function effectively in both the administrative and educational areas. In other words, their two interrelated priorities are: insuring the delivery of appropriate and effective instructional services and administering the system or organization through which those services are delivered.[1]

Researchers have found that the degree of interest administrators express in, and attention they pay to, basic skills improvement make a difference in how successful the schools are in improving the level of student achievement. They have found that commitment to and support of basic skills improvement by

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[1] Ruff 1978, Carroll and Chall 1975, Bond and Dykstra 1967, Welder 1977, Holzman and Boes 1973, Klitgaard and Hall 1973.

administrators is a key factor in that success (Carroll and Chall 1975 in Felsenthal 1978).

Research into successful schools stresses the need for the principal to be involved in the school's instructional program as well as in school management (McLaughlin 1978). Shared emphases by principals and teachers can have a strong positive (or negative) impact on the school in general and on student achievement in particular (Edmonds 1978).

Researchers agree that administrative and teacher expectations of students' abilities to learn help activate self-fulfilling prophecies that affect actual student learning and achievement.[1] When high expectations are combined with an emphasis on basic skills, research results indicate that the impact upon the school can be extremely positive and comprehensive. One researcher found that where teachers and administrators combine their shared emphases on reading with high expectations, they help to create a school where "reading is the thing to do." (Gordon, in press, in Felsenthal 1978)

Researchers also found that in schools where students succeed in increasing mastery of basic skills, administrators assume the responsibility for making sure that basic skills are taught and believe that <u>all</u> of their students can master the basic learning objectives that have been set.

2. <u>Administrators' Behaviors</u> (4, 12, 13, 16, 21, 28, 41, 44)

As the school's top administrator, the principal can affect the entire school through his interactions with teachers, students and the management systems that keep the school functioning.

A study of four inner-city schools that were successful in helping students significantly increase their reading achievement scores found that the principals' contributions were central to that success. Researchers found that the principals were instrumental in:

- setting the tone of the school.
- helping to decide on instructional strategies to be used with students.
- organizing and distributing school resources to support teachers and students in carrying out the instructional strategies.

Principals in these schools (a) provided strong leadership to the school as a whole, (b) consistently emphasized student acquisition of reading skills, (c) required careful and frequent evaluation of pupil progress by teachers, and (d) established a climate of "high expectations" for <u>all</u> of their students (Edmonds 1978 citing a study by Weber 1972).

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[1] Brophy and Good 1972, Pigeon 1970, Rosenthal and Jacobsen 1968 in Felsenthal 1978, Glass and Smith 1977.

Other research (Brookover and Lezotte 1976) has confirmed that in effective schools, the principal:

- is assertive in his role as educational and administrative leader.
- has firm and positive standards for student behavior.
- assumes the responsibility for evaluation of student achievement in basic skills.

This last item, monitoring student progress, is important to principal effectiveness, student learning and school success, and other researchers have found that, in effective schools, the principal is constantly aware of student progress in relation to specific instructional objectives (Edmonds 1978).

This does <u>not</u> mean that the principal takes all the responsibility for basic skills needs-assessment, goal-setting, program analysis, planning, and monitoring of progress, but rather ensures that basic skills program activities are coordinated throughout all administrative and teaching units of the school system.

Information and involvement are necessary at all levels of effective basic skills programs, and successful administrators make sure that people at all levels are not only involved in assessment, goal-setting, program analysis planning, implementation and evaluation, but also receive the necessary information. In successful basic skills programs, information is shared at all levels and is recognized as a key motivator for teachers and administrators.

Another study,[1] which compared a low-achieving school and a high-achieving school noted that, in the high-achieving school, administrators accomplished the following:

- concentrated on factors effecting student achievement that were under the school's control
- encouraged <u>all</u> teachers to be more optimistic about their own ability to meet the students' learning needs, and did <u>not</u> attribute students' reading problems to non-school factors
- provided a good balance between their management and instructional skills, and stressed policies, behaviors and practices which contributed favorably to the effectiveness of the school
- developed specific plans for improving reading and implemented these plans throughout the school
- created an environment in which students could succeed

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[1] Edmonds 1978 citing a study done by the New York State Office of Education Performance (1974).

Researchers have found that how teachers view the principal reveals what makes for an effective school. Teachers in effective schools see the principal as the instructional leader, and teachers in higher-achieving schools report that the principal helps strengthen the school improvement process by encouraging team-building and problem-solving in a focused, project-like atmosphere (McLaughlin 1978).

Because the principal affects the operation of the entire school, research on overall school effectiveness has important implications for what principals do and how they spend their time and energies. In a major study (Madden, Lawson and Sweet 1976), researchers compared 21 pairs of schools--21 of the schools performed poorly on standardized achievement tests, 21 schools scored well on the same tests. All other characteristics of the student bodies were evenly matched. The higher-achieving schools were found to share the following characteristics:

- Teachers reported a significantly greater amount of support from their principals.
- Teachers expressed more confidence in the educational decisions made by administrators.
- Teachers were more task-oriented in their classrooms and applied principles of learning appropriate for their students.
- Teachers expressed more satisfaction with aspects of their own work.
- There were fewer groups for instructional purposes.
- There were more volunteers in math and reading classes and aides were used for non-teaching tasks.
- More time was spent on social studies while equal time was spent on reading in both higher and lower achieving schools.
- There was more access to higher-level, "outside the class" material.
- There was more evidence of processes for monitoring student progress more evidence of student effort, happier children, and an atmosphere that was conducive to learning.

Researchers have found that a well-trained and highly motivated teaching staff is necessary for implementing program improvement efforts.[1] Still other studies confirm the fact that, to be effective, schools need staff members who are academically and emotionally prepared to meet the challenges of program improvement by becoming involved in analyzing problems, researching and identifying strategies for improvement, and carrying out educational processes proven to work (Wilder 1977 and Holzman and Boes 1973).

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[1] Bond and Dykstra 1967, Sweeney and Blaschka 1975, Wargo et al. 1972.

Motivation comes from within each person, and is stimulated by ideas, desires or circumstances. Researchers have found areas in which the principal can help to stimulate high teacher motivation and willingness to participate in educational improvement processes. Some key factors are:

- How often the principal offers support and suggestions to teachers, visits classrooms and observes teacher efforts to implement instructional approaches, with guidance and feed-back offered on performance and accomplishment (Putting Knowledge to Use, 1976, summarizing Lippitt 1967).

- How often the principal discusses teachers' personal and professional activities and growth with them.

- To what degree the principal supports inservice activities, practical staff development training and demonstrations of teaching/learning methods (Emrick and Peterson 1977, summarizing Berman 1975-77).

- To what degree the principal holds frequent staff meetings and encourages teacher involvement in decision making with other people whose participation is important in making and carrying out effective decisions (Emrick and Peterson 1977, summarizing Berman 1975-77).

- The principal's public recognition and use of teacher-initiated ideas within the school.

C. SCHOOL CLIMATE FACTORS INFLUENCING SUCCESS (5, 9, 12, 13, 24, 28, 31, 45)

The overall school climate affects and is affected by everyone involved in a school; it affects the willingness of the staff to become involved in educational improvement efforts. Research shows that successful schools have:

- more open climates.

- positive relationships between peers (student-to-student, teacher-to-teacher) and between people at differing levels of authority (student-to-teacher, teacher-to principal).

- rewards and norms that encourage the sharing of ideas among teachers

- administrative support for teachers' ideas and efforts based on two-way communication between teachers and administrators (Putting Knowledge to Use 1976, summarizing Lippitt 1967).

Additional research on the climate of effective schools has shown that such schools are: orderly without being rigid, quiet without being oppressive, and generally efficient at conducting the business at hand (Edmonds and Frederickson 1978).

Effective schools also have less authoritarian leadership, more group decision-making, and two-way vertical-horizontal communication wherein teachers receive the information and resouces they need from administrators and other teachers.[1] An effective climate is marked by person-to-person interaction and communication, as opposed to sole reliance on edicts, announcements or memos, with staff committed to sharing information and helping others make use of it. The needs of staff members in this sort of school are more likely to be met. In short, researchers have found that a school climate that possesses such characteristics is more likely to have mutual feedback going on between students and teachers and teachers and principals (Putting Knowledge to Use 1976, summarizing Lippitt 1967).

Brookover and Lezotte (1977) conducted a study in which they compared six "improving" schools and two "declining" schools to identify their differences and the qualities that contributed to raising students' achievement levels (Edmonds 1978). Several common positive factors emerged in the "improving" schools:

- All teachers and administrators accepted and emphasized the mastery of the basic skills' reading and math objectives.

  All personnel were committed to bringing all children to a minimum level of achievement, and spent more time on direct reading and math instruction.

- Teachers and principals believed that all of their students could master the basic skills objectives.

- The staff accepted the concept of accountability to a greater degree than in the "declining" schools, and were further advanced in the development of an accountability model.

- The staff in the "improving" schools were less satisfied and appeared more likely to experience some tension, whereas the "declining" schools exhibited more staff satisfaction and complacency with current levels of educational attainment. The context within which people experience tension has much to do with whether it is "healthy", creative, productive tension or not (Louis and Rosenblum 1978).

An analysis of characteristics of exceptional or high-performing urban elementary schools conducted by Clark, Lotto and McCarthy identified similar factors in these successful schools: positive staff attitudes and high expectations; an emphasis on reading and math; and high levels of parental contact.[2]

Strong research supports the hypothesis that a school will succeed if it has an achievement-oriented staff with high expectations for their students and a shared commitment to attainment of specific educational goals. This climate of "productivity", if strong enough, overcomes apparently insurmountable barriers to student achievement.

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[1] Roberts 1978 referring to Hall and Alford 1976, Alford 1976 (Kirst, note 4), Lindzey and Aronson 1969.

[2] Clark, David L, Lotto, Linda S, and McCarthy, Martha. Factors Associated with Successful Urban Elementary Schools. Unpublished paper, 1980.

D. PARENT/COMMUNITY INVOLVEMENT IN SUCCESSFUL SCHOOLS (5, 9, 11, 13, 23, 28, 45)

Researchers report that the participation of adult volunteers and/or parents is a common factor in school with effective basic skills programs.[1] An Office of Education study of data collected on hundreds of schools showed that the top 100 schools were "overachieving" and were characterized by great parental interest and involvement (Kitgaard and Hall 1973).

Parents and other volunteers can assume various roles in the educational process -- as resource people, teacher aides, library aides, etc. -- which allow them to lend general support to faculty and, more importantly, to their children. Higher achieving schools report a higher number of adult volunteers in basic skills classes and successful use of teacher aides for "non-teaching tasks such as paperwork, watching the children on the playground, and maintaining classroom discipline". Researchers found that non-paid teacher aides have a positive effect on effective educational processes (Madden, Lawson and Sweet 1976 in Edmonds 1978).

Research has also shown that voluntary parental involvement in the life of the school contributes to the overall effectiveness of school improvement efforts. Parents are involved more intensely when they initiate the home/school relationship. Researchers have found that this indicates a higher level of parental involvement, is found in effective schools, and represents an effective instrument to support change (Brookover and Lezotte 1976).

As mentioned earlier, parents provide leadership for students in the home which can affect student behavior, willingness to work hard, and learning in school and out. Research has shown that parents' participation in setting standards for improving students' academic performance aids in the development of realistic, achieveable goals. Such involvement should well be encouraged by administrators and teachers.

E. SUMMARY

The research findings in the key areas of Classroom, Administration, School Climate and Parent/Community Involvement, and in the identification of the five basic success elements common to those areas (leadership style and behavior, high and realistic expectations, assumption of responsibility, communication and interaction, and approaches to planning) provide information which should be considered seriously when planning basic skills programs. These critical factors are alterable variables and, while obstacles to change and success should not be underestimated, these research findings provide us with direction and cause for optimism.

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[1] Criscuolo 1977, and Holzmann and Boes 1977.

Summary of

VARIABLES RELATED TO EFFECTIVE BASIC SKILLS INSTRUCTION BASED ON EDUCATIONAL RESEARCH

I. CLASSROOM VARIABLES	SUPPORTING RESEARCH
1. Teachers provide strong leadership by directing activities, approaching subject matter in a businesslike way; organize learning around questions they pose; occupy a central role; and apply appropriate principles of learning.	Stallings & Kaskowitz 1974, Soar 1973, Solomon & Kendall 1976, Madden, Lawson & Sweet 1976
2. Teachers assume responsibility and commitment for teaching basic reading and math skills.	Brookover & Lezotte 1976
3. Emphasis is placed on reading-related activities.	Stallings & Kaskowitz 1974, Wiley & Harnischfeger 1974, McDonald 1976
4. Teachers have high expectations for all of their students.	Weber 1971, Clark 1964, Gottlieb 1964, Becker 1952, Brookover & Lezotte 1974, Clark Lotto and McCarthy 1980.
5. A structured, well organized classroom management system prevails in which: - adequate assessment and measurement techniques are used - basic skills objectives are clearly written and understood by all staff - teachers inform students of the objectives of lessons and of their own expectations for achievement - activities are individualized based upon assessment - the activities are systematically implemented - current materials are related to lessons previously taught - a variety of instructional materials is available - a vareity of instructional strategies is used - careful and frequent evaluation of student progress is made	Cooley & Leinhardt 1975, Rosenshine 1976, Evertson & Brophy 1973, Bond & Dykstra 1967, Soar 1973, McDonald 1976, Brookover & Lezotte 1976, Holzman & Boes 1973, Tikunoff, Berliner & Rist 1975, Snow 1977, Cooley & Leinhardt 1976 Criscuolo 1977, Tyler & Wolf 1974, Weber 1971, Wilder 1977, Evans 1978 based on review of: Campbell 1974, Campbell 1977, Benz 1975, Scott 1977, Harbison 1973, Harrell 1974, Sowinski 1976, Foley & Hamilton 1975, Harness 1974, Spann 1974, Schmidt 1973, Weatherford 1977, Scoff 1974, Neff 1974, Forber 1974, Reid 1974, Curry 1973, Howell 1974, Gibbons 1974, Dodd 1974, West 1975, Alder 1974, Dornseif & Carr 1977, Johnson 1974, Sinclair 1973, Blockmore 1974, Mello 1974, Morgon 1974, Musso 1974, Warner 1974, Sharpe 1976, Schromon 1974, Backer 1973, Sears 1974, Howell 1973

6. Student absenteeism is minimal thus maximizing absolute time spent in school	Rosenshine 1976, Wiley & Harnischfeger 1974, Harris 1968, Gow 1977, Bond & Dykstra 1967
7. Maximum time in class is spent on task-related academic activities	Berliner & Rosenshine 1977, Gow 1977, Rosenshine 1976, 1977, Medley 1978, Stallings & Kaskowitz 1974, Bloom 1976, Harris & Serwer 1976, McDonald & Elias 1976, Soar 1973, Brookover & Lezotte 1976
8. The classroom is characterized as convivial, cooperative, democratic and warm.	Solomon & Kendall 1976, Tikunoff, Berliner & Rist 1975
9. Students are organized into large and medium size groups for instruction.*	Berliner & Rosenshine 1977, Gow 1977, Medley 1978, Rosenshine 1976, 1977, Stallings & Kaskowitz 1974, Madden, Lawson & Sweet 1976
10. Classrooms are free of deviant disruptive behavior.	Soar 1973, McDonald & Elias 1976, Brophy & Evertson 1974, Bemis & Luft 1970, Coker, Lorentz & Coker 1976
11. Teachers use praise and positive motivation concerning academic activities in their interaction with students.*	Medley 1978, Stallings & Kaskowitz 1974, Harris & Serwer 1966, Brophy & Evertson 1974
12. Teacher do not criticize student behavior, shout, scold, ridicule or use sarcasm to maintain order.	Solomon & Kendall 1976, Tikunoff, Berliner & Rist 1975
13. Seat work is supervised by the teacher.	Medley 1978, Rosenshine 1976, 1977, Soar 1977, Coker, Lorentz & Coker 1976, McDonald, Elias 1976, Soar 1973, Stallings & Kaskowitz 1974
14. Students initiate contacts with teachers during seatwork.	Brophy & Evertson 1974, Good & Grouws 1975
15. Peer tutoring is available.	Hallifield 1975, Glass & Smith 1977

16. Well-trained and highly motivated staff prevail.	Bond & Dykstra 1967, Sweeney and Blaschke 1975, Wargo et al. 1972, Wilder 1977, Holzman & Boes 1973
17. Little or no more time is spent in "pull-out" programs.	Coulson 1977 in Glass & Smith 1977
II. ADMINISTRATION	
1. The school is led by an administrative team which provides a balance between management and instructional skills.	Weber 1972
2. Policy and support for basic skills improvement are exhibited from all levels of the system.	Carroll & Chall 1975, Holzman & Boes 1973, Klitgaard & Hall 1973, Wilder 1977
3. Administrators have a strong commitment to improving basic skills as a high priority.	Samuels in press, Carroll & Chall 1975, Bond & Dykstra 1967, Wilder 1977
4. The administrative team has developed and implemented a plan for dealing with basic skills problems.	Weber 1972
5. The administration believes that <u>all</u> of their students can master basic objectives.	Brookover & Lezotte 1976
6. Principals assume responsibility for insuring the teaching of basic skills and are committed to doing so.	Brookover & Lezotte 1976
7. The principal is assertive in his instructional leadership role, is a disciplinarian and assumes responsibility for evaluation of achievement of basic skills.	Brookover & Lezotte 1976
8. Means exist in the school whereby the principal remains constantly aware of pupil progress in relation to instructional objectives.	Edmonds & Fredericksen 1978

9. The principal serves as instructional leader in strengthening the school improvement process through team building and problem solving in a projectlike environment.	McLaughlin 1978
10. Articulation and coordination of the basic skills program exist throughout all administration and staff units of the school system.	
11. Students are not labeled as academically weak.	Smith, summarizing 43 students in Glass & Smith 1977
III. SCHOOL CLIMATE	
1. The school atmosphere is orderly without being rigid, quiet without being oppressive, and generally efficient in conducting the business at hand.	Edmonds & Fredericksen 1978
2. Positive peer and authority relationships exist: there is routine teacher sharing of communications; rewards and norms support the sharing of ideas; administrators support two-way communications flow; teacher ideas have influence.	Putting Knowledge to Use 1976, summarizing Lippitt 1967
IV. COMMUNITY VOLUNTEERS AND PARENT INVOLVEMENT	
1. Parents initiate high level involvement with the schools.	Brookover & Lezotte 1976, Fremer 1977 a.b.
2. Parents support the basic skills program.	Criscuolo 1977, Holzman & Boes 1973, Klitgaard & Hall 1973
3. Adult volunteers are used in Basic Skills classes.	Madden, Lawson & Sweet 1976
V. PLANNING	
1. Inservice programs involve teachers in planning and managing their own proficiency level, activities, pursuing personal and collective objectives, sharing ideas and materials, applying new learning and receiving feedback from supervisors.	Tolbert 1978 summarizing Lawrence 1974

2. Teacher improvement efforts are integrated with other aspects of school change such as curriculum development and administrative reform.	McLaughlin 1978
3. The characteristics for comprehensive planning system include:	Kiser 1978, Roberts 1978, summarizing Havelock & Havelock 1973
- active participation by teachers, administrators, and superintendent	
- direction of the project by a task force representing all subsystems	
- coordination of the planning by a high-ranking administrator (assistant superintendent)	
- use of a work plan and schedule	
- collaborative interaction system	
- functioning of consultant as advisor (not director)	
- flow of task directives from task force to subsystem members	
- goal congruence between subsystems, and individual reasons	
- productivity as illustrated by staff training, documentation, systems analyses of problematic areas	
- perceived success of participants	

*Research supports the finding only for low SES students

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